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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/633,005	08/04/2000	David G. Way	FN-3120	2260

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EXAMINER

BELLO, AGUSTIN

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 07/16/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/633,005

Applicant(s)

WAY, DAVID G.

Examiner

Agustin Bello

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,10,11 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) 7,14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,10,11 and 16-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Art Unit: 2633

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in Paper No. 13 is acknowledged.
2. Claims 7, 14, and 15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 13.
3. This application contains claims 7, 14, and 15 drawn to an invention nonelected without traverse in Paper No. 13. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Art Unit: 2633

5. Claims 1, 2, 4, 5, 10, 11 and 16-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Handelman (U.S. Patent No. 6,574,018).

Regarding claims 1 and 10, Handelman teaches a fiber optic communication system, comprising: multiple channels (column 13 lines 50-51), at least one of said channels having a variable bandwidth (column 13 lines 51-54, column 14 lines 29-34, column 15 lines 62-67, column 17 lines 11-30, column 18 lines 57-59).

Regarding claims 2 and 11, Handelman teaches that said bandwidth is varied by using a tunable filter (column 14 lines 29-34).

Regarding claim 4, Handelman teaches a fiber optic communication system, comprising: multiple channels (column 13 lines 50-51), wherein the bit rates of one or more of said channels are dynamically tunable (column 8 lines 1-9).

Regarding claim 5, Handelman teaches that said channels are tuned using tunable filters (column 14 lines 29-34).

Regarding claim 16, Handelman teaches a method of operating an optical communication system, comprising: increasing a spectrum width of a first optical channel space (including non-converted channels) by at least an amount equal to a spectrum width of a second optical channel space (including the converted channels) to create a new optical channel space; wherein the new optical channel space has a spectrum width at least equal to a sum (e.g. via combination of non-converted and converted wavelengths) of the spectrum width of the first optical channel space and the spectrum width of the second optical channel space; and communicating a signal over the new optical channel space at a bit rate requiring the spectrum width of the new optical

Art Unit: 2633

channel space (column 3 lines 11-20, 31-38, column 13 lines 50-54, column 14 lines 1-7, 29-33, column 15 lines 1-8, 62-67, column 16 lines 16-18, 47-52).

Regarding claim 17, Handelman teaches the method of Claim 16, wherein increasing a spectrum width of a first optical channel space comprises tuning a filter (column 14 lines 1-6, column 14 lines 29-34) associated with the first optical channel space to a wider passband.

Regarding claim 18, Handelman teaches the method of Claim 16, further comprising deactivating a transponder associated with the second optical channel space (column 17 lines 48-53).

Regarding claim 19, Handelman teaches a fiber optic communication system, comprising: a first optical channel space having a first spectrum width; a second optical channel space adjacent to the first optical channel space, the second optical channel space having a second spectrum width; a tunable filter operable to increase the second spectrum width of the second optical channel space by at least an amount equal to the first spectrum width to create a new optical channel space having a third spectrum width, the new optical channel space operable to carry a signal at a bit rate requiring the third spectrum width (column 21 lines 55-61, column 22 lines 4-36, column 25 lines 41-57, column 26 lines 6-13, 22-24).

Regarding claims 20 and 22, Handelman teaches a method of operating an optical communication system, comprising: dividing a first spectrum width (e.g. transfer of data from channel 2) of a first optical channel space to create a second optical channel space having a second spectrum width (e.g. channel 6) and a third optical channel (e.g. channel 7) space having a third spectrum width; wherein a sum of the second spectrum width and the third spectrum width is equal to (e.g. equalization of the channels) or less than the first spectrum width;

Art Unit: 2633

communicating a signal over the second optical channel space at a bit rate requiring a spectrum width equal to or less than the second spectrum width; and communicating a signal over the third optical channel space at a bit rate requiring a spectrum width equal to or less than the third spectrum width (column 21 lines 55-61, column 22 lines 4-36, column 25 lines 41-57, column 26 lines 6-13, 22-24).

Regarding claim 21, Handelman teaches the method of Claim 20, wherein dividing a first spectrum width of a first optical channel space comprises tuning a filter of the first optical channel space to a narrower passband (column 13 lines 50-67 and column 14 lines 1-6, 29-33).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Handelman (U.S. Patent No. 6,574,018) in view of Shiozawa (U.S. Patent No. 5,357,097).

Regarding claims 3 and 6, Handelman differs from the claimed invention in that Handelman fails to specifically teach that the tunable filters used are acousto-optic tunable filters. However, acousto-optic tunable filters are very well known in the art. Furthermore, Shiozawa teaches it is well known in the art to use acousto-optic tunable filters in order to vary the transmission bandwidth of a signal (abstract). One skilled in the art would have been motivated to have used acousto-optic tunable filters as the tunable filters in the system of Handelman since acousto-optic tunable filters are readily available and provide tuning through a

Art Unit: 2633

wide variable wavelength range. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have used acousto-optic tunable filters as the tunable filters in the device of Handelman.

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Handelman (U.S. Patent No. 6,574,018).

Regarding claim 23 Handelman teaches a fiber optic communication system, comprising: a plurality of emitters (column 11 lines 44), each emitter operable to communicate a signal over a respective initial channel, wherein each initial channel has a respective initial spectrum width; a plurality of modulators (column 11 lines 45), each modulator coupled to at least one of the plurality of emitters, wherein each modulator is operable to modulate data onto a signal; and a passband filter (reference numeral 130 in Figure 2), the filter coupled to at least one of the plurality of emitters, wherein the filter is operable to vary the initial spectrum width (e.g. via tuning of the filter) of at least one of the initial channels to form at least one new channel that utilizes a channel spacing of at least one of the initial channels, wherein the at least one new channel has a respective new spectrum width. Handelman differs from the claimed invention in that Handelman fails to specifically teach a plurality of passband filters each coupled at least one of the plurality of emitters. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included a plurality of passband filters, since it has been held that mere duplication of the essential working part of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Art Unit: 2633

Response to Arguments

9. Applicant's arguments with respect to claims 1-7, 10, 11, 14-23 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (703)308-1393. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703)305-4729. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

AB
July 14, 2003


JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600